J. F. POOL.

Grain Separator.

No. 98,407. Patented Dec. 28, 1869.

Fig. 1

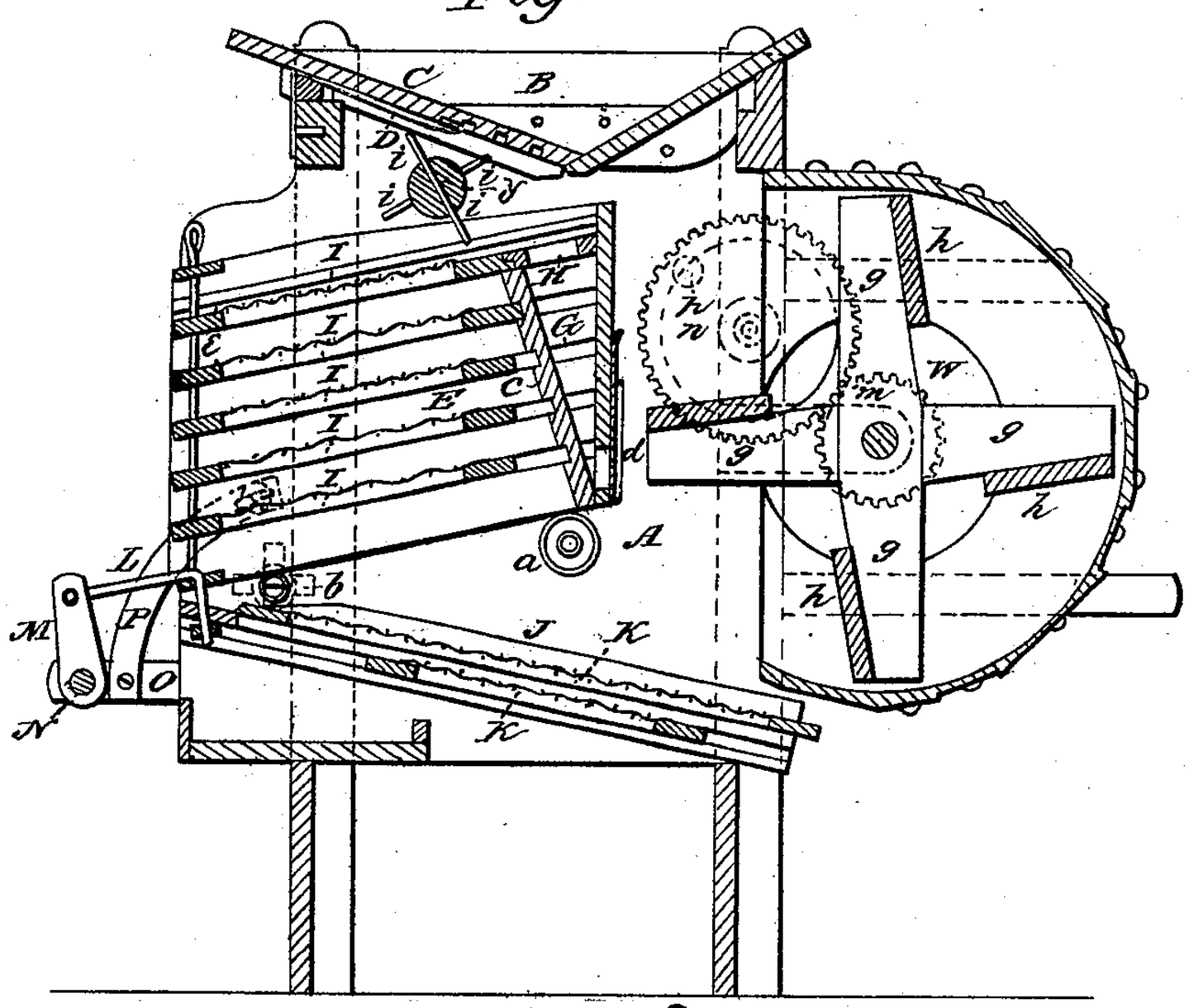
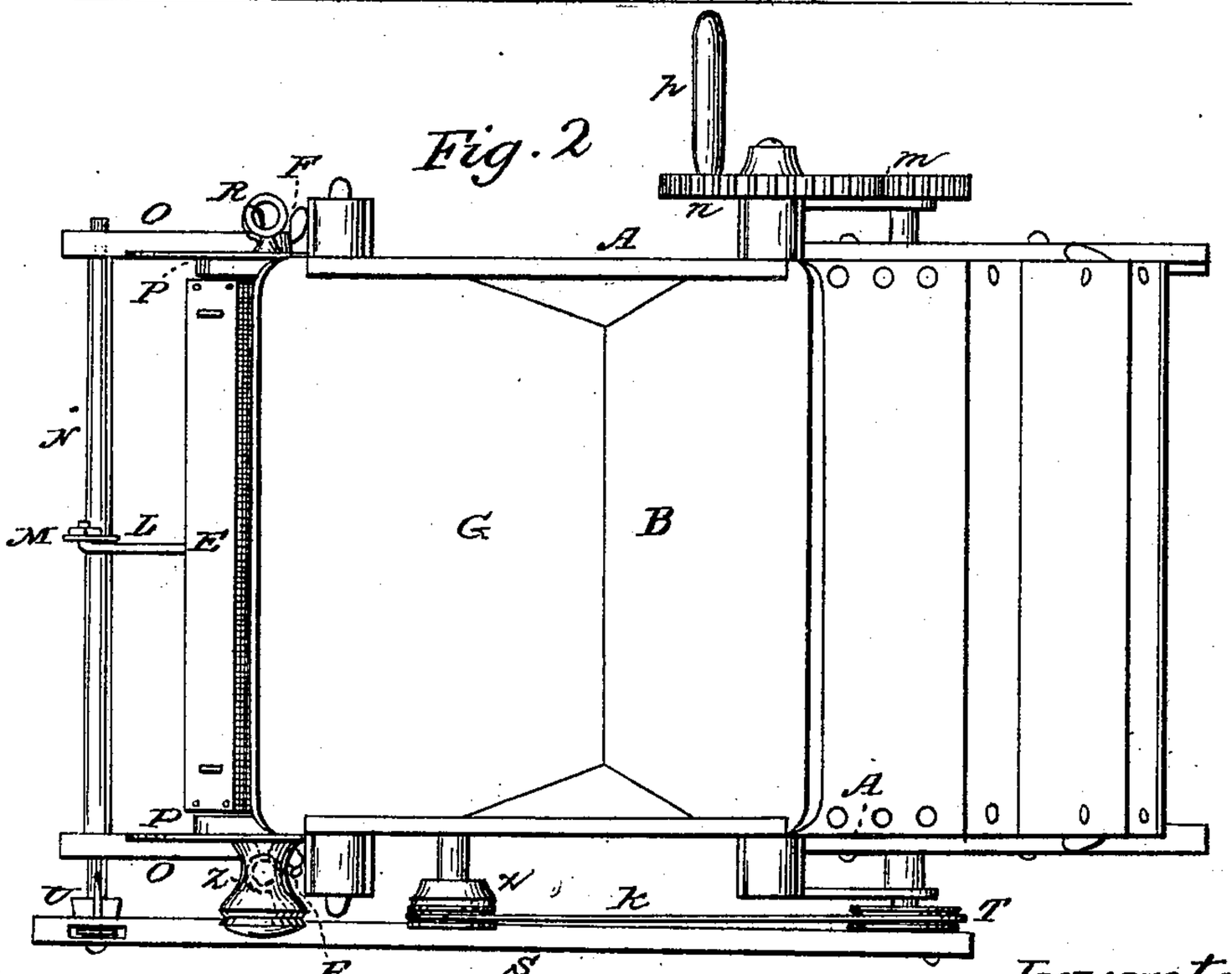


Fig. 2



Witnesses:

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JOSEPH F. POOL, OF MONROE, WISCONSIN.

Letters Patent No. 98,407, *dated December* 28, 1869.

IMPROVEMENT IN SEED AND GRAIN-SEPARATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH F. POOL, of Monroe, in the county of Green, and State of Wisconsin, have invented certain new and useful Improvements in American Seed and Grain-Separators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and general arrangement of a grain and seed-separator, as will hereinafter be fully set forth.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 is a plan view of my machine.

A represents the frame-work of my machine, in the upper part of which is the hopper B.

The hopper-board C is notched on the under side, and held in any position desired, by means of the spring D, which is secured to the hopper, and the inner end of which enters into any one of the notches on the hopper-board, and thus the feed can be easily regulated.

Within the frame A is placed the sieve-frame E, which rests upon rollers, *a a*, under its rear end, and at its front end upon rollers *b b*, which may be raised or lowered at will, so as to change the incline or pitch of the sieves in the frame E.

The rollers *b b* are place on the inner ends of set-screws F F, which pass through slots in the sides of the frame A, thus admitting of the raising and lowering of the rollers *b b*.

The sieve-frame E is, at the rear end, by a partition, *c*, divided off, forming a V-shaped chamber, G, with a sliding door, *d*, on the rear side, for emptying grass-seed.

The chamber G is covered by the hopper-screen H, directly under the hopper, through which screen the grass-seed passes into the chamber below.

In the other portion of the frame E, that is, in front of the seed-chamber G, in grooves in the sides of the frame, are inserted the sieves I I, which are held in place by a rod, *e*, on each side, that passes through said sieves and the frame.

Under the frame E is another frame, J, with sieves K K inclining in the opposite direction, the lower end of which frame rests upon a cross-bar in the main frame A.

The frames E and J are, by means of a hook, L, connected with a lever, M, on a rocking shaft, N, which has its bearings in arms O O, pivoted to the sides of the main frame A, and held at any height desired, by means of slotted and curved plates P P.

These plates are secured to the frame A by means of set-screws R R, which thus allow the rocking shaft N to be raised and lowered at will, thereby also raising or lowering the sieves.

Through the rocking shaft N, the sieves receive their motion; and the rocking shaft itself receives its motion by means of a pitman, S, which connects a crank-pulley, T, with a lever, U, on the end of the rocking shaft.

The fan W is constructed in the following manner:

On the centre of the fan-shaft *f* is one set of arms, *g g*, supporting the wings *h h*, which enables the wind to pass within the drum without obstruction, giving the fan greater power.

The crank-pulley T is by a belt, *k*, connected with a pulley, X, on the end of a shaft, Y, which is placed directly under the hopper B, and is provided with rake-teeth, *i i*, for the purpose of separating and throwing out chaff and straw from grain and all kinds of smaller seeds.

The pulley X may be connected with another pulley, Z, to work an additional rake, when required.

On one end of the fan-shaft, *f*, is a cog-wheel, *m*, which gears with another larger cog-wheel, *n*, turned by a crank, *p*, for operating the machine, or it may be operated in any other suitable manner.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The frame E, constructed as described, with a partition, *c*, to form the V-shaped chamber G, said chamber being provided with sliding door *d* and hopper-screen H, substantially as and for the purposes herein set forth.

2. The arrangement of the arms O O, slotted plates P P, and set-screws R R, for the purpose of raising and lowering the rocking shaft N, substantially as herein set forth.

3. The within-described arrangement of feed-board C, spring D, shaft Y, frame E, stationary rollers *a a*, adjustable rollers *b b*, arms O O, slotted plates P P, and rocking shaft N, all constructed and operating in the manner and for the purpose set forth.

In testimony that I claim the foregoing as my own, I affix my signature, in presence of two witnesses.

JOSEPH F. POOL.

Witnesses:

EDMUND BARTLETT,

LEWIS ROTE.